

REMARKS

With respect to Item 2 and regarding claims 35 and 60, Applicant submits that the Choi '367 reference fails to teach each and every limitation of Applicant's invention as recited in those claims, because the reference fails to teach the limitation "a gate electrode disposed over the insulator and having one or plurality of apertures, wherein each aperture is concentrically self-aligned with the end of one of the nano-structures, so as to expose a single nanostructure and provide each nano-structure with substantially the same emitter-to-gate distance, the gate electrode being operative to control the emission of electrons through the apertures from the exposed nano-structures," which is present in both claims. Applicant's invention achieves this resulting structure because of the way it is fabricated. In contrast, the reference teaches the use of a particle masking technique to achieve a gate aperture structure. However, the particle masking techniques taught in the reference cannot achieve the limitation set forth and therefore the reference does not teach such a structure. First, the technique in the reference purposefully includes a multiplicity of nanoconductors in each aperture. Choi, Col. 7, line 64 to Col. 8, line 3. In contrast, Applicant's invention, in claims 35 and 60, recites that each of the apertures is concentrically self-aligned with the end of one of the nano-structures, so as to expose a single nanostructure¹. Second, the technique in the reference does not contemplate the alignment of an aperture about each one of the nano-structures. This is clear from FIG. 11 of the reference and the description of the particle mask technique. Clearly, the range in the size of the particles (1-5 μm) is such that multiple nano-structures will become exposed by the aperture and thus there is no concept of aligning the aperture with those multiple structures. Choi, Col. 8, lines 46-53. Therefore, the Choi reference fails to teach each and every limitation of Applicant's invention as recited in claims 35 and 60.

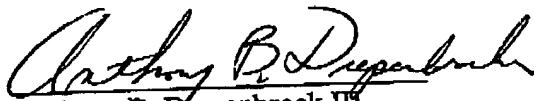
¹ Error in this sentence was corrected from original amendment filed August 8, 2005.

Thus, in light of the above, Applicants respectfully request reconsideration and allowance of the pending claims and the new claims in the above-mentioned application.

Respectfully submitted,

DECHERT LLP

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Anthony B. Diepenbrock III
Reg. No. 39,960

DECHERT LLP
Customer No. 37509
P.O. Box 10004
Palo Alto, CA 94303-0961
Tel: 650.813.4800
Fax: 650.813.4848

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I hereby certify that this correspondence is being forwarded via facsimile to Examiner Jesse Benty in Group No. 2815 at facsimile number (571) 273.8300 & (703) 872.9306 located at Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on September 13, 2005.

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Yvette Yturkale-Owen